A FEDERATION OUT OF BALANCE

G.C. Ruggeri

Vaughan Chair in Regional Economics
Department of Economics
University of New Brunswick

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I. INTRODUCTION

In a federal system, the central government often collects revenue in excess of its direct responsibilities and uses the excess to help sub-national governments finance spending programs of national importance and to assist less affluent regions to provide public services at national standards without imposing excessive tax burdens on their residents. It is essential, therefore, that fiscal structures have sufficient flexibility to allow the adjustments necessary to maintain a balance between spending responsibilities and revenue-raising capabilities for all governments. When subnational governments are faced with spending pressures that test the revenue-raising potential of their revenue structures while the central government's fiscal structure produces surpluses of increasing amounts over time, we say that the federation has a vertical fiscal imbalance. This is the current situation in Canada. It was created by the combination of federal policies aimed at eliminating the deficit, reductions in federal intergovernmental transfers and increasing cost pressures on public programs delivered by provinces, particularly in the health care field.

This situation has been producing inefficient public policy choices and has placed increasing stress on federal-provincial relations. While provinces may have financial difficulties in meeting public demands for people-oriented programs, the federal government has the opportunity to expand its limited range of direct spending programs, with the risk of unduly infringing on traditional areas of provincial responsibility. This imbalance must be redressed if Canada is to enter the next century firmly anchored upon a foundation of harmonious intergovernmental relations, which is essential for success in the 21st century.

In order to evaluate the implications of these imbalances and to develop effective redressing policies, it is necessary to know their magnitude and the path they may follow over the medium- and long-term. Estimates of current values and future trends in vertical fiscal imbalances are developed in this paper (in order to permit a critical evaluation of these estimates we have provided details of our assumptions and our calculations in the appendix).

- We first place vertical fiscal imbalances within a recent historical context by discussing in section II the fiscal changes at the federal and provincial/territorial level during the 1992-99 period. We show that from 1991-92 to 1998-99 the federal government turned a deficit of $38.6 billion into a surplus of $5.3 billion. Provincial/territorial governments, faced with cost pressures in their people.
- Oriented spending programs and cuts in federal transfers, could only manage a reduction of $15 billion in their combined deficits despite strong efforts at fiscal restraint.
- In section III we present and discuss our findings with respect to the dimensions of vertical fiscal imbalances from 1998-99 to 2019-20. We show that the current fiscal structure in Canada will lead to a rapidly widening fiscal gap between federal and provincial/territorial governments. **According to our calculations, *given the existing fiscal structures*, the provinces and territories as a whole will**

have a small surplus in fiscal year 2019-20, but the federal government will have a surplus $140 billion higher than that for the provincial/territorial governments.

- In section IV we evaluate the implications of a proposal which captures the recommendations of the Western Premiers made at their May 2000 meeting. We show that restoring the cash payment under the CHST to $18.7 billion in 2000-01 and letting CHST cash payments and equalization payments increase in line with nominal GDP would allow provincial and territorial governments to meet their constitutional spending responsibilities in a fiscally sustainable manner while leaving the federal government still with a large surplus.
- Section V presents the results of some sensitivity analysis. It shows that reducing the average annual growth rate of nominal GDP by one percentage point (a drop of 23%) will still leave the federal government with sizeable surpluses, but will generate deficits for provincial/territorial governments over the entire period. Deficits for the entire period for provincial/territorial governments will also be created if the growth of health care spending increases by an extra one percent per year, while federal surpluses will remain unchanged. The final section contains some concluding comments.

II. HOW WE GOT HERE

Table II-1
Federal and Provincial/Territorial Fiscal Balances, 1991-92 and 1998-99
($ Billion)

	Federal			Provincial/Territorial		
	1991-92	**1998-99**	**Change**	**1991-92**	**1998-99**	**Change**
Revenues	130.1	170.4	40.3	142.4	180.8	38.4
Expenditures	168.7	165.1	(3.6)	165.4	189.1	23.7
Surplus (Deficit)	**(38.6)**	**5.3**	**(43.9)**	**(23.0)**	**(8.3)**	**(14.7)**
% of Expenditures	(22.9)	3.2		(13.9)	(4.4)	
% of GDP	(5.6)	0.6		(3.3)	(0.9)	

Source: Statistics Canada, Provincial Economic Accounts and FMS.

Table II-1 provides some information on the changes in the fiscal position of federal and provincial/territorial governments that took place from 1991-92 to 1998-99, a period dominated by the pursuit of fiscal restraint aimed at eliminating budget deficits. The good performance of the Canadian economy during this period provided a strong boost to revenues for all orders of government. The revenue gain was higher for the federal government ($40.3 billion or 31.0%) than for the provincial/territorial governments ($38.4 billion or 27.0%). The stronger revenue performance at the federal level was due to the dominance of the personal income tax in the federal revenue mix and its ability to raise revenues at a faster rate than GDP. The federal government was able to hold the line on expenditures, actually producing a small reduction of $3.6 billion, because it is not directly involved in the delivery of fast-growing people-oriented spending programs. Provincial and territorial governments were unable to fully contain the cost pressures arising in health care

and education and, despite strong efforts at spending control, ended up with $23.7 billion in extra spending, an increase of 14.3% from 1991-92. This increase was less than the combination of inflation and the growth of the population, resulting in a reduction in real per capita expenditures by provincial/territorial governments. While the federal government was able to turn a deficit of $38.6 billion into a surplus of $5.3 billion, provincial and territorial governments could manage to reduce their combined deficit by $14.7 billion from $23.0 billion in 1991-92 to $8.3 billion in 1998-99.

Table II-2
Selected Components of Government Spending, 1991-82 and 1998-99
($ Billion)

	1991-92	1998-99	Change
Federal			
Interest on the Debt	41.1	44.1	3.0
Intergovernmental Transfers	28.1	27.6	(0.5)
Other Spending	99.5	93.4	(6.1)
Total Spending	168.7	165.1	(3.6)
Provincial Territorial			
Interest on the Debt	20.0	29.0	9.0
Health, Education and Social Services	107.1	125.5	18.4
Other Spending	38.3	34.6	(3.7)
Total	165.4	189.1	23.7

Additional information on changes in spending by federal and provincial/territorial governments is provided by Table II-2. At the federal level, the rapid decline in the deficit held back the growth of the debt. This factor combined with lower interest rates resulted in only a $3 billion increase in debt servicing charges from 1991-92 to 1998-99. While holding direct spending down, the federal government also reduced its financial commitment to the fast-growing social programs delivered by provincial and territorial governments. Unable to fully contain the cost pressures in social spending and to offset the reductions in federal transfers, provincial/territorial governments fell short of eliminating their combined deficit. As a result, their debt servicing charges increased by $9 billion, three times the amount for the federal government. A large portion of this increase can be assigned to the reduction in federal transfers to provincial and territorial governments. Without the effects of federal downloading, the increase in debt servicing charges would have been roughly the same for both orders of government. Combined with increasing spending on health care, education and social services, provincial/territorial governments ended up spending $23.7 billion more in 1998-99 than in 1991-92 while the federal government recorded a reduction of $3.6 billion in its expenditures.

This gap in the fiscal performance of the two senior orders of government arises from a fundamental imbalance in their fiscal structures. The federal government has a revenue structure dominated by the fastest growing revenue source, the personal income tax, and a single fast-growing spending program (OAS) which accounts for a small portion of total spending. The provinces and territories, on the other hand, have a built-in fast growth in large components of their spending mix, but cannot rely as heavily on the growth of personal income tax revenues because they account for only 27% of revenues compared to 47% for the federal government. **We will show in the next section that these vertical fiscal imbalances have a built-in tendency to create wider gaps in fiscal performances with each passing year. *Under the existing fiscal structures*, by fiscal year 2019-20, both orders of governments will have surpluses, but the federal government's surplus will be $140 billion higher than that of provincial/territorial governments.**

III. WHERE WE ARE HEADING

A. Vertical Fiscal Imbalances: Summary

Table III-1
The Roots of Vertical Fiscal Imbalances

		Federal			Provincial/Territorial			Federal Minus Provincial/ Territorial.	
	GDP	Rev.	Exp.	Diff.	Rev.	Exp.	Diff.	Rev.	Exp.
1998-99 to 2003-04	5.2	4.4	2.4	2.0	4.1	3.2	0.9	0.3	(0.8)
2003-04 to 2008-09	4.4	4.4	1.8	2.6	3.5	3.2	0.3	0.9	(1.3)
2008-09 to 2013-14	4.2	4.2	2.1	2.2	3.5	3.3	0.3	0.7	(1.2)
2013-14 to 2019-20	4.0	4.2	2.2	1.9	3.5	3.3	0.2	0.6	(1.1)
1998-99 to 2019-20	4.4	4.3	2.1	2.2	3.6	3.2	0.4	0.6	(1.1)

Table III-1 shows the foundations of vertical fiscal imbalances in Canada expressed in terms of differential growth rates of revenues and expenditures for the two senior orders of government. Let us confine our discussion to the entire period 1998-99 to 2019-20 starting with the revenue side. Since we are dealing with the sum of all provinces and territories, the growth rate of nominal GDP is the same for both federal and provincial/territorial calculations. We have estimated an average annual growth rate of 4.4% (see Appendix Table A-1). Column 2 shows that federal revenues grow on average at about the same rate as GDP, a result consistent with a widely used assumption about federal revenue growth (see, for example, the recent study by the Royal Bank). Provincial/territorial revenues, however, are estimated to grow at about four-fifths of that rate primarily because the fastest growing revenue source, personal income taxes, represents a much smaller proportion of their revenue mix than for the federal revenue mix. Our calculations suggest that applying the same growth rates to federal and provincial/territorial revenues would effectively assume away one of the two components of vertical fiscal imbalances.

Major differences also exist in the growth rates of government expenditures. Federal spending is estimated to grow at half the growth of nominal GDP. This slow growth is due primarily to the large share of debt servicing charges, which will remain flat throughout the period, and the fact that the only fast growing federal spending program (OAS) accounts for a small portion of total spending. By contrast, provincial/territorial expenditures are estimated to grow at three-quarters the growth of nominal GDP primarily because their fast growing spending programs account for more than half of total spending. Again, studies that assign equal growth rates to federal and provincial/territorial expenditures would assume away the second component of vertical fiscal imbalances.

The magnitude of vertical fiscal imbalances can also be evaluated by comparing the structural imbalances of the two senior orders of government. Table III-1 shows that over the entire period, ***in the absence of discretionary policy changes but including announced tax cuts,*** **federal revenues are expected to grow at more than twice the rate of federal expenditures. By contrast, provincial/territorial revenues will grow at a rate only slightly higher than the growth of expenditures.** Therefore, while the provincial/territorial fiscal position will improve slowly, the federal government will enjoy rapidly increasing budget surpluses.

In Table III-2 the differences in growth rates are transformed into dollar amounts. On the revenue side, the differences between federal and provincial/territorial revenue are affected by two forces operating in opposite directions. The provinces and territories have slower growing revenue sources, but this slower growth is applied to a higher initial level of revenues. As a result, the annual increase in provincial/territorial revenues is not much different than that of the federal government. Over the entire period from 1998-99 to 2019-20, federal revenues are expected to increase by $241 billion compared to $203 billion for the provinces and territories resulting in a difference of $38 billion. On the spending side those two forces operate in the same direction. Provincial and territorial governments have a higher starting level of spending and a higher growth rate. As a result, their expenditures are estimated to increase by $181 billion compared to $93 billion for the federal government, producing a difference of $88 billion. In dollar terms, the spending side makes a much larger contribution to vertical fiscal imbalances than the revenue side.

Table III-2
The Path of Vertical Fiscal Imbalances
($ Billion)

Selected Years	**Federal**			**Provincial/Territorial**		
	Revenue	**Expenditure**	**Surplus**	**Revenue**	**Expenditure**	**Surplus (Deficit)**
1998-99	170.4	165.1	5.3	180.8	189.1	(8.3)
2003-04	211.5	186.2	25.3	220.9	221.8	(0.9)
2008-09	261.9	203.7	58.2	262.3	259.0	3.3
2013-14	322.3	225.9	96.4	311.8	304.0	7.8
2019-2010	411.7	258.0	153.7	383.8	369.9	13.9

Change from 1999 to 2020	**241.3**	**92.9**	**148.4**	**203.0**	**180.8**	**22.2**

B. Components of Vertical Fiscal Imbalances: The Revenue Side

In order to derive further insights into the dynamics of vertical fiscal imbalances, we are providing details on the components of revenues and expenditures. On the revenue side, vertical fiscal imbalances may originate from three sources: (a) the occupation of different revenue fields, (b) different revenue elasticities for the different revenue sources, and (c) different shares of total revenue for revenue sources with both federal and provincial/territorial occupancy.

Information on these factors is contained in Table III-3 which shows, for each order of government, data on revenues by source and on shares of tax revenues in 1998-99, plus assumed growth rates (details on the assumptions are found in Appendix Table A-2). As shown in table III-3, both senior orders of government share the following revenue sources: personal income taxes, corporate income taxes, social insurance taxes, general consumption taxes, fuel taxes, miscellaneous taxes and investment income (excluding royalties). These revenue sources account for 97% of federal revenues and 74% of provincial territorial revenues. The federal government has exclusive domain over custom and excise duties while provincial/territorial governments have sole or predominant occupancy of property and related taxes, liquor and gambling profits, royalties and intergovernmental transfers. Since most of the revenue sources have the same growth rate for federal and provincial/territorial governments, the differences between the two orders of government are due to differences in the revenue mix. Provincial/territorial governments have a revenue mix with lower potential growth for two main reasons: personal income tax revenues account for a smaller share of revenue than for the federal government (58% of the federal share) and intergovernmental transfers, which account for 13% of their revenues, grow at a rate far below the average.

Table III-3
Elements of Fiscal Imbalances on the Revenue Side

Revenue Source	Federal			Provincial/Territorial		
	$ Billion 1998-99	Share (%)	Average Growth Rate (%)	$ Billion 1998-99	Share (%)	Average Growth Rate (%)
PIT	79.4	46.6	5.3[1]	49.2	27.2	5.0[1]
CIT	22.0	12.9	4.3[1]	11.7	6.5	4.4[1]
GST/RST	23.5	13.8	4.0	24.1	13.3	4.0
EI/WCB & Payroll Taxes (excluding CPP	19.3	11.3	3.2	15.5	8.6	3.2
Excise Taxes on Fuel	4.7	2.7	2.4	6.9	3.8	2.4
Custom and Excise Duties	5.7	3.3				
Miscellaneous	4.9	2.9	1.9	15.1	8.3	1.9
Property and Capital Taxes				7.4	4.1	2.7
Liquor and Gambling Profits				7.0	3.9	2.7
Investment Income (excluding Royalties)	11.1	6.5	1.0	11.7	6.5	1.0
Royalties				9.0	5.0	2.4
CHST				12.5	6.9	0.9[2]
Equalization[3]				10.7	5.9	2.5
Total	170.4	100.0	4.3	180.8	100.0	3.6

[1] The growth rates are not identical for federal and provincial/territorial governments because we incorporated the discretionary changes announced in the 2000 budgets which were larger in the case of the federal government. The underlying growth rates for both orders of government are 5.6% for the personal income tax and 4.4% for the corporate income tax.

[2] Includes supplements. The underlying growth rate without supplements is zero.

[3] Includes special grants to territorial governments.

Table III-4 shows the estimated changes in revenue during selected periods. We notice that the difference between federal and provincial changes is very small during the 1999-2004 period but amounts to nearly $40 billion over the entire period. Based on our calculations, the federal share of total own-source revenues will increase from 52.6% in 1998-99 to 54.2% in 2019-20.

Table III-4
Changes in Revenues for Selected Periods
($ Billion)

	1998-99 to 2003-04	2003-04 to 2008-09	2008-09 to 2013-14	2013-14 to 2019-20	1998-99 to 2019-20
Federal	41.1	50.4	60.4	89.4	241.3
Provincial/Territorial	40.1	41.4	49.5	72.0	203.0
Difference	**1.0**	**9.0**	**10.9**	**17.4**	**38.3**

C. Components of Vertical Fiscal Imbalances: The Spending Side

There is little joint occupancy of direct spending fields; therefore, on the spending side vertical fiscal imbalances are affected primarily by different cost pressures on the different spending components of federal and provincial/territorial governments.

Table III-5
Elements of Fiscal Imbalances on the Spending Side

	Federal			Provincial/Territorial		
	$ Billions	Share (%)	Average Growth Rate (%)	$ Billions	Share (%)	Average Growth Rate (%)
OAS	16.0	9.7	4.5			
GIS & SPA	7.0	4.2	1.9			
Family Benefits	5.8	3.5	4.2[1]			
Employment Insurance/WCB	12.2	7.4	3.2	4.9	2.6	3.2
Social Assistance				14.7	7.8	1.9
Other Transfers to Persons	8.6	5.2	1.9	10.3	5.4	1.9
Transfers to Business	4.2	2.5	1.0	4.2	2.2	1.0
CHST (excluding supplement)	12.5	7.6	0.9[2]			
Equalization	10.7	6.5	2.5			
Health Care				52.0	27.5	4.8
Education	3.7	2.2	4.0	43.6	23.1	4.0
Other Program Spending	40.3	24.5	2.4	30.4	16.1	2.4
Total Program Spending	121.0	73.3	2.7	160.1	84.7	3.7
Debt Servicing Charges	44.1	26.7		29.0	15.3	
Total	165.1		2.1	189.1		3.2

[1] Includes discretionary changes announced in the 2000 budget.

[2] Includes the supplement. The underlying growth rate without the supplement is zero.

On the spending side, the difference in growth rates between federal and provincial/territorial governments is larger because for the latter more than half of program spending has a high built-in growth. As shown in Table III-6, federal spending increases by $12 less than provincial/ territorial spending during the 1999-2005 period. This difference widens through time and it amounts to $88 billion over the entire period. As a result of the differential growth rates of expenditures, the share of federal spending in total spending will drop from 50.6% in 1998-99 to 43.2% in 2019-20.

Table III-6
Changes in Government Spending for Selected Years
($ Billions)

	1998-99 to 2003-04	2003-04 to 2008-09	2008-09 to 2013-14	2013-14 to 2019-20	1998-99 to 2019-20
Federal	21.1	17.5	22.2	32.1	92.9
Provincial/Territorial	32.7	37.2	45.0	65.9	180.8
Difference	**-11.6**	**-19.7**	**-22.8**	**-33.8**	**-87.9**

IV. THE PREMIERS' PROPOSAL: A MODEST FIRST STEP

At their May, 2000 Conference held in Brandon, Manitoba, the Western Premiers stressed that they "want the federal government to become a full partner again in financing the top priorities of Western Canadians, like health care". They called "on the federal government to join them in sustaining Canada's health care system by immediately and fully restoring the CHST and by creating a new fiscal balance between the two orders of government". The Premiers also stressed that "it is absolutely essential that an appropriate escalator be put into place so that federal funding keeps pace with growing cost pressures" and called on the federal government to "ensure adequacy of the Equalization Program by removing the ceiling."

We used the Western Premiers' recommendations as a basis for the development of a proposal which contains two major elements. First, it restores CHST cash financing to $18.7 billion in 2000-01. Second, both CHST cash payments and Equalization payments will grow at the rate of nominal GDP, lagged one year, starting in 2001-02. The Premiers did not provide details on the value and scope of the escalator. In this version of the Premiers' proposal we assumed that the nominal GDP escalator applies to both Equalization and CHST cash payments. Our estimates, however, will also allow an evaluation of an alternative version of the Premiers' proposal which applies the GDP escalator only to CHST cash payments. This alternative version of the Premiers' proposal will be discussed later.

Table IV-1 shows that under current arrangements there would be minimal increases in federal transfers. The cash transfers under the CHST would remain flat at $15 billion starting in 2004-05 while equalization payments would increase at 2.5% per year. The combination of these two changes would result in an increase of only $7.5 billion from 2000 to 2020. Under the Premiers' proposal most of the increase in

federal transfers would come from CHST cash payments which would increase from $14.5 billion in 1999-2000 to $41.7 billion in 2019-20. Over the same period, Equalization would increase from $10.9 billion to $25.0 billion. Under the Premiers' proposal, federal transfers in 2020 would be $33.6 billion higher than under the current arrangements. Table IV-2 shows that, under the current arrangements, the contribution of federal transfers to provincial/territorial revenues would drop from 15.3% in 1998-99 to 10.3% in 2019-20. Under the Premiers' proposal, that contribution would increase to 19.1% in 2019-20, a level still lower than that in 1991-92.

Table IV-1
Summary of CHST and Equalization Changes under the Premiers' Proposal
($ Billions)

	CHST		Equalization	
	Current	**Proposed**	**Current**	**Proposed**
1999-2000	14.5 (includes supplement)	14.5	10.9	10.9
2003-04	15.5	21.6	12.1	12.9
2008-09	15.0	26.9	13.6	16.1
2013-14	15.0	32.9	15.4	19.7
2019-20	15.0	41.7	17.9	25.0

Table IV-2
Contribution of Federal Transfer Payments to Provincial/Territorial Revenues

	Share of Provincial/Territorial Revenues	
	Current Arrangements	**Modest Proposal**
1991-02	19.8	
1998-99	15.3	15.3
2019-20	10.3	19.1

Tables IV-3 and IV-4 show how vertical fiscal imbalances would be affected by the implementation of the premiers' proposal. We notice that federal revenues continue to grow faster than provincial territorial revenues, while provincial/territorial expenditures continue to grow faster than federal revenues. The difference in growth rates has been cut in half by restoring the CHST level and introducing an escalator. The Premiers' proposal adds $33.6 billion to provincial/territorial revenues and to federal expenditures. As a result the estimated surpluses in 2019-20 are $47.7 billion for provincial/territorial governments and $119.9 billion for the federal government. Even after increasing transfers by the amounts incorporated in the premiers' proposal, the federal government would have a surplus in 2019-20 two and a half times higher than that of the provincial/territorial governments.

The general conclusion that we reach from the above results is that **the Premiers' proposal is not an extravagant one. It represents only a modest first step towards rebalancing the fiscal foundations of the Canadian federation. While placing the finances of provincial and territorial governments on more solid footing, the Premiers' proposal leaves the federal government with a surplus more than sufficient for any level of prudence and for additional discretionary policies.**

Table IV-3
The Roots of Vertical Fiscal Imbalances under the Premiers' Proposal, Average Annual Percentage Change

		Federal			Provincial/ Territorial			Federal minus Prov./Terr.	
	GDP	Rev.	Exp.	Exp (after proposal)	Rev.	Rev. (after proposal)	Exp.	Rev. (after proposal)	Exp. (after proposal)
1998-99 to 2003-04	5.2	4.4	2.4	3.2	4.1	4.8	3.2	(0.4)	0
2003-04 to 2008-09	4.4	4.4	1.8	2.4	3.5	4.0	3.2	0.4	(0.8)
2008-09 to 2013-14	4.2	4.2	2.1	2.6	3.5	3.8	3.3	0.4	(0.7)
2013-14 to 2019-20	4.0	4.2	2.2	2.7	3.5	3.8	3.3	0.4	(0.6)
1998-99 to 2019-20	**4.4**	**4.3**	**2.1**	**2.7**	**3.6**	**4.1**	**3.2**	**0.2**	**(0.5)**

Table IV-4
The Path of Vertical Fiscal Imbalances Under the Premiers' Proposal
($ Billion)

Selected Years	Federal			Provincial/Territorial		
	Rev.	Exp.	Surplus	Rev.	Exp.	Surplus (Deficit)
1998-99	170.4	165.1	5.3	180.8	189.1	(8.3)
2003-04	211.5	193.2	18.3	227.9	221.8	6.1
2008-09	261.9	218.0	43.9	276.6	259.0	17.6
2013-14	322.3	248.1	74.2	334.0	304.0	30.0
2019-2010	**411.7**	**291.8**	**119.9**	**417.6**	**369.9**	**47.7**
Change from 1999 to 2020	241.3	126.7	114.6	236.8	180.8	56.0

Tables IV-1 and IV-2 allow an evaluation of the alternative Premiers' proposal which applies the GDP escalator only to CHST cash payments. As shown in Table IV-1, eliminating the GDP escalator for equalization payments will reduce federal expenditures and provincial/territorial revenues by less than one billion in 2003-04, $2.5 billion in 2008-09, $4.3 billion in 2013-14 and $7.1 billion in 2019-20. As a result, the federal surpluses shown in Table IV-4 will be higher by the above amounts and the provincial/territorial surpluses will be lower by the same amount. In

2019-20 the federal surplus will be $127.0 billion and the provincial/territorial surplus will be $40.6 billion.

V. SOME SENSITIVITY ANALYSIS

In interpreting the fiscal projections presented in this paper, three points must be stressed.

First, the results apply to the combined revenues and expenditures of all provinces and territories. We know, however, that not all provinces were in the same fiscal position in the starting year. We also know from past experience that not all provinces face the same demographic changes and economic prospects. **For some provinces, the small potential long-run surpluses estimated in this paper may translate into deficits even within the framework of moderate growth in health care spending and steady economic growth.**

Second, **while federal surpluses are large enough to safely accommodate potential increases in its spending, future provincial/territorial surpluses are precarious.** In our calculations we used fairly conservative assumptions about the growth of education and health care spending. If, for a given pattern of economic growth, the combined average annual growth rate of spending on health care and education increases by half a percentage point, the surplus in 2019-20 will be wiped out and there will be deficits for all previous years.

Finally, **while federal surpluses are large enough to withstand major recessions, provincial/territorial future surpluses would be hard hit even by a moderate recession.** In its 2000 budget, the federal government estimated that a one percent increase in income would raise the surplus by $2.4 billion. With a trend growth rate of 4.4%, even a moderate recession would involve a drop in income of at least five percent from its trend line. Such a reduction would lower any potential provincial/territorial surplus, assuming a similar response, by over $10 billion. This means that a recession of this magnitude occurring anytime over the next twenty years would push provincial/territorial budgets into the red.

In order to evaluate the fiscal effects of increased cost pressures and lower economic growth we re-calculated vertical fiscal imbalances under the following two alternative scenarios. In the first scenario we increased the growth rate of health care spending by one percentage point. In the second scenario we reduced the growth rate of GDP by one percentage point, half a point from lower employment growth and half a point from lower labour productivity growth. The summary results are shown in Table V-1.

Table V-1

Federal and Provincial/Territorial Surpluses (Deficits) Under Higher Health Care Spending Growth and Lower GDP Growth
($ Billion)

	Higher Health Care		Lower GDP Growth	
	Federal	**Prov./Terr.**	**Federal**	**Prov./Terr.**
1998-99	5.3	(8.3)	5.3	(8.3)
2003-04	25.3	(4.1)	16.4	(4.8)
2008-09	58.2	(5.0)	36.5	(6.6)
2013-14	96.4	(8.4)	56.4	(10.7)
2019-20	153.7	(17.1)	82.6	(19.5)

The increase in health care spending will affect only provincial/territorial expenditures, leaving all the other components of vertical fiscal imbalances unaffected. The results presented in Table V-1 show that, in the absence of offsetting measures, such an increase in cost pressures would push the budgets of provincial and territorial government into a deficit position for the entire period. By 2019-20, the provincial/territorial governments would have a combined deficit of $17 billion while the federal government would enjoy a surplus of $154 billion.

The above option stresses the risk faced by provincial and territorial governments from potential cost pressures in health care. Similar potential cost pressures exist in post-secondary education for a variety of reasons. First, underfunding of post-secondary education institutions due to fiscal restraint and the reduced federal commitment has created an infrastructure - buildings, laboratories and equipment - that may require substantial upgrading if Canadian universities are to be competitive at the world level. Second, the knowledge base of the new economy will require life-long learning and will put additional pressures on our post-secondary institutions as they try to cope with increased demand for training by an increasing proportion of both youth and adults and with the need to design programs with sufficient flexibility to accommodate changing demands.

The slowdown in economic growth would affect both orders of government, but the effect would be stronger for the federal government primarily because of the reduction in personal income taxes which represent a much larger share of revenues for the federal government. Nonetheless, the federal government would still be left with surpluses throughout the entire period, although the surplus in 2019-20 would be reduced by $71 billion to $83 billion, while provincial/territorial governments would be in the red for the entire twenty years.

The above option explores the potential fiscal effects of a slower, but still steady, growth rate of GDP. It does not provide information on the relative sensitivities of the federal and provincial/territorial fiscal positions to cyclical fluctuations. A severe or prolonged recession would still leave the federal government with a surplus, but may have a disastrous effect on the finances of the provincial and territorial governments. While both orders of government would suffer revenue

losses, provincial/territorial governments may be more exposed on the spending side. The reforms to the Employment Insurance (EI) program will likely reduce the impact of a recession on federal spending in this area. For provincial and territorial governments, EI reforms may become a form of federal downloading during recessions because the more unemployed workers fail to qualify for EI benefits the larger becomes the list of social assistance claimants. We suggest that, in discussing the dimensions of vertical fiscal imbalances and evaluating potential rebalancing options, special attention should be paid to the relative cyclical sensitivities of federal and provincial/territorial budget positions.

VI. CONCLUSIONS

That there is an imbalance between the fiscal system of the federal government and that of the provinces and territories has been known for some time. While provinces were struggling in their efforts to balance their books, the federal government eliminated its deficit quickly and has started accumulating large surpluses. What is becoming more evident as time passes is the large dimension of these vertical fiscal imbalances. We estimated in this paper that while provincial and territorial governments will continue to be hard pressed to maintain balanced budgets, the federal government will have an embarrassment of riches, with surpluses increasing rapidly year after year. **We project that, *with the current fiscal structures*, in 20 years both orders of government will have surpluses, but the federal surplus will be $140 billion higher than the small combined surplus of all provincial and territorial governments. We also show that increased cost pressures in health care or slower economic growth would push provincial/territorial budgets into a deficit position over the entire period while the federal government would continue to enjoy sizeable surpluses.**

It must be emphasized that, although our calculations show that the combined fiscal structures of provincial and territorial governments may be balanced over the long-term, that balance is very precarious for a variety of reasons. First, we used fairly conservative assumptions about cost pressures in health care and education. Even small increases in the growth rate of spending in these two areas will turn these small surpluses into deficits. Second, we assumed a steady growth of GDP. Any major disruption to that growth pattern, for example through a severe or prolonged recession, would also create a deficits for provincial/territorial governments. Third, a return to deficit financing, whatever the cause, would be difficult to correct because it would create a lower base for the growth of revenues and a higher base for the growth of expenditures, given the higher level of debt servicing charges.

Restoring some balance in the fiscal structure of federal and provincial/territorial governments is not simply a question of providing additional funding for health care. More than that is required. What provincial and territorial governments need is a revenue structure which, through a combination of suitable growth in own-source revenues and a stable, reliable and more substantial

commitment from the federal government, provides the funds necessary to meet the demands of Canadians for people-oriented programs in a manner which is sustainable over the long-run and covers the risks originating from potential cost pressures and economic fluctuations.

The concern about vertical fiscal imbalances is not a numbers game, but an issue that strikes at the very heart of the Canadian federation. The numbers provided by estimates of vertical fiscal imbalances, however, are useful in the analysis of rebalancing options because they define the dimensions of the fiscal problem. **Our estimates indicate that the Premiers' proposal for increased CHST funding and a higher escalator for CHST cash payments and equalization payments would not place undue stress on federal finances, but would represent a modest step towards rebalancing the fiscal foundations of the Canadian federation.**

APPENDIX

A. Conceptual Issues

Vertical fiscal imbalances are the potential result of the dynamics of fiscal structures within a federation. They arise when there is a relative mismatch between the revenue growth and spending pressures of different orders of government. In estimating the magnitude of vertical fiscal imbalances we trace the time-path of revenues and expenditures of each order of government that will result from the existing fiscal structures, without taking into account potential future corrective measures. The values for revenues and expenditures so derived should not be treated as forecasts against which to compare actual outcomes. Rather, they represent projections based on certain assumptions about trends in selected demographic and economic variables and the associated trends in revenues and expenditures. Therefore, in evaluating the results, the main focus should be placed not on the actual values in the initial years of the sample period but on the differences in growth rates of revenues and expenditures for the different orders of government and the differences in the respective fiscal positions over the long-term. With respect to this study, the fact that we started with a base year associated with a deficit for all provinces combined leads to small deficits in the early years, given the provincial/territorial fiscal structures. If in practice we notice that these deficits have been eliminated, it does not mean that our economic or fiscal assumptions were incorrect. Rather, it suggests that provincial and territorial governments took remedial action to prevent the occurrence of those deficits. Therefore, comparisons of projected and actual fiscal positions provide useful information not on the accuracy of the projections but on the effect of the discretionary policies that may have been implemented for the purpose of correcting potentially undesirable outcomes. One can easily adjust the projections for the more recent years to make the results conform to the budget data. These adjustments, however, would simply involve level changes for a couple of years and would have negligible effects on the long-term trends of vertical fiscal imbalances.

In our study we faced three major issues with respect to discretionary changes: (a) use of the surplus, (b) treatment of income tax cuts and (c) future changes in Employment Insurance (EI) contributions.

Any options for the use of the surplus involves a policy choice, a step which is conceptually inconsistent with the no policy change foundations of vertical fiscal imbalances. In our calculations we tried to minimize the effect of the surplus by assuming that in each year the surplus is distributed to all Canadians in a lump-sum manner. This assumption ensures that the use of the surplus minimizes the potential effect on economic variables and the growth rates of revenues and expenditures. As an alternative, one can assume that a portion of any surplus in a given year is used as a contingency reserve which is applied to reduce the public debt when not otherwise utilised. This option would tend to widen the dimensions of vertical fiscal imbalances through time because for a number of years provincial and territorial governments will not have surpluses that can be used for contingency reserves. Therefore, under this option, the federal debt would fall over time, and so would its interest charges, while the combined provincial/territorial debt and associated interest charges, would remain unchanged.

We incorporated the personal income tax cuts already announced in the budgets of all governments by making level adjustments to the estimated revenues and by reducing the potential growth rate of personal income taxes in response to indexation and to the flatter pattern of tax rates.

We left EI rates at their current rates because no announcement about future changes has been officially made. Given the current surplus which may become larger through time if the economy grows at the rate assumed in this paper, one may argue that lower EI premiums are inevitable even though they have not been announced yet. Although we do not present detailed estimates of the effect of lower EI premiums in the text, we did run a simulation under a selected option. We estimated that if EI rates are adjusted to ensure that in the future revenues equal expenditures, EI contributions would fall by $13.7 billion by 2019-20. This means that the federal surplus would be $140 billion instead of $154 billion. For previous years, of course, the reduction in the federal surplus would be smaller.

Two more issues arise in the calculation of vertical fiscal imbalances: (a) the base year and (b) level changes. The calculation of vertical fiscal imbalances involves the application of selected growth rates to the initial values of revenue and expenditure components. The path of vertical fiscal imbalances through time, therefore, depends on both the respective growth rates and the respective budget positions in the base year. We used 1998-99 as the base year because it was the latest fiscal year for which Financial Management System data were available at the time of writing. During the next year, the budget positions of both orders of government improved, but the improvement is likely to have differed in magnitude. Estimates of vertical fiscal imbalances using 1999-2000 as the base year may differ moderately from those developed in this paper.

Some policy changes alter the underlying growth of revenue or expenditure items while other changes just change the level. Two types of level changes may be identified: (a) permanent and temporary. The former raise the level to which a given growth rate is applied and lead to a combined effect on future values of the revenue or spending item. The latter have no effect on the long-run values of the revenue or spending item as is the case of the interim CHST cash payments. In selecting base-year estimates of revenues and expenditures it is essential to make the necessary adjustments for these two types of level changes.

B. **Demographic and Economic Assumptions**

Table A-1

Percentage Change in Demographic and Economic Variables Used in Our Calculations

Fiscal Year Ending in	Population	Employment	Labour Productivity	Real GDP	Nominal GDP	CPI
2000	.94	2.45	1.60	4.09	6.38	2.2
2001	.86	1.75	1.27	3.04	5.20	2.1
2002	.83	1.90	.98	2.90	4.90	2.1
2003	.81	1.70	1.10	2.82	4.77	1.9
2004	.78	1.65	1.10	2.76	4.71	1.9
2005	.76	1.55	1.20	2.76	4.71	1.9
2006	.74	1.40	1.20	2.62	4.57	1.9
2007	.72	1.30	1.20	2.52	4.46	1.9
2008	.70	1.20	1.20	2.41	4.36	1.9
2009	.69	1.10	1.20	2.31	4.26	1.9
2010	.69	1.10	1.20	2.31	4.26	1.9
2011	.68	1.00	1.20	2.21	4.15	1.9
2012	.67	1.00	1.20	2.21	4.15	1.9
2013	.65	.90	1.30	2.21	4.15	1.9
2014	.64	.90	1.30	2.21	4.15	1.9
2015	.63	.80	1.30	2.11	4.05	1.9
2016	.61	.80	1.30	2.11	4.05	1.9
2017	.60	.70	1.30	2.00	3.95	1.9
2018	.59	.70	1.30	2.00	3.95	1.9
2019	.57	.70	1.30	2.00	3.95	1.9
2020	.55	.70	1.30	2.00	3.95	1.9
Average	.70	1.24	1.24	2.50	4.48	1.94

C. Fiscal Assumptions

Table A-2
Assumptions about the Growth of Revenues and Expenditures

Item	Assumptions
Revenues	
Personal Income Tax	For the period up to fiscal year 2004-05 it grows at 1.3 times nominal GDP minus the revenue reductions due to changes already announced in budgets. After 2004-05, PIT revenue grows at 1.25 times nominal GDP.
Corporate Income Tax	Revenue grows in line with nominal GDP minus revenue reductions announced in budgets.
GST, HST, PST	Revenue grows at .9 times nominal GDP.
Payroll Taxes (EI, WCB etc.)	Revenue growth equals CPI growth plus labour productivity growth.
Custom and Excise Duties	Zero growth.
Fuel Taxes	Revenue growth equal to CPI growth plus .5 percentage points.
Miscellaneous Revenue	Revenues increase with CPI growth.
Property and Related Taxes	Revenue growth equals CPI growth plus population growth.
Liquor and Gambling Profits	Revenue growth equals CPI growth plus population growth.
Investment income (excl. royalties)	Revenues increase 1% per year.
Royalties	Revenue growth equals CPI growth plus half a percentage point.
CHST	Cash payments (in $ billion) equal 12.5 in 1998-99, 14.5 in 1999-2000, 15.5 in 2000-01 to 2003-04 and 15.0 thereafter.
Equalization and Terr. Special Grants	Revenue growth of 2.5% per year.

Item	Assumptions
Expenditures	
OAS	Spending growth equals CPI growth plus growth of population 65+.
GIS and SPA	Spending growth equal to CPI growth.
Family Benefits	Federal 2000 budget estimates up to 2003-04; for remaining years, spending growth equal to CPI growth plus population growth.
Employment Insurance and WCB Benefits	Spending growth equals CPI growth plus labour productivity growth.
Social Assistance	Spending growth equals CPI growth.
Other Transfers to Persons	Spending growth equals CPI growth.
Transfers to Business	Spending growth equal to 1\2 CPI growth.
CHST	As in revenues.
Equalization and Terr. Special Grants	As in revenues.
Health care	Spending growth equals CPI growth plus population growth plus aging factor (from cost driver study) plus cost pressure of 1.2% per year.
Education	Spending growth equal to .9 times nominal GDP growth.
Other Program Spending	Spending growth of 2.4% per year developed as follows. We assumed a 40\60 split between wage and non-wage spending. We assumed that the first component increases at the rate of inflation plus labour productivity and the second component tracks inflation.
Debt Charges	Zero growth.

D. Comparison with Other Studies

Table A-3
Comparison between Our Study and the Royal Bank Study
Assumptions

	Average Annual Percentage Change				
	Nominal GDP	**Fed. Rev.**	**Prov./Terr. Rev.**	**Fed. Program Spending**	**Prov./Terr. Program Spending**
Royal Bank 1998-99 to 2007-08	4.4	4.4	4.4	2.9	2.9
Ratio to GDP Growth		1.0	1.0	0.66	0.66
Our Study 1998-99 to 2019-20	4.4	4.3	3.6	2.9	3.8
Ratio to GDP Growth		0.98	0.82	0.66	0.86

Results

	Estimated Surpluses in 2007-08, $ Billion		
	Federal	Provincial/Territorial	Federal minus Provincial/Territorial
Royal Bank	41.2	27.5	13.7
Our Study	51.6	2.5	49.1

	Estimated Surpluses in 2019-20, $ Billion		
	Federal	Provincial/Territorial	Federal minus Provincial/Territorial
Royal Bank (extrapolation)	133.8	103.9	29.9
Our Study	153.7	13.9	139.8

Table A-3 shows that the average annual growth rate of nominal GDP is identical in both studies, although it applies to periods of different length. It also shows that, for the federal government, the ratios of the growth rate of revenues and expenditures to the growth rate of nominal income are almost identical in the two studies. The main difference is in the assumptions about growth rates of provincial/territorial revenues and expenditures which, in our study, were developed through an evaluation of individual components. By assuming that federal and provincial/territorial revenues grow at the same rate and that federal and provincial/territorial expenditures also grow at the same rate, the Royal Bank study effectively assumed away vertical fiscal imbalances.